

IN THE CLAIMS

1. (Currently Amended) A NO_x control ~~for an exhaust,~~ comprising:
a nickel compound comprising about 50 wt% to about 100 wt% nickel oxide
based on total weight of the nickel compound; and
a NO_x adsorber, ~~wherein the NO_x adsorber is selected for an oxygen content in~~
~~said exhaust greater than about 1 molar% based on the total exhaust.~~

2 - 4. (Cancelled)

5. (Currently Amended) The NO_x control as in Claim 2, wherein said nickel
compound comprises about 80 wt% to about 100 wt% nickel oxide based on total weight of the
~~nickel composition~~ compound.

6. (Currently Amended) The NO_x control as in Claim 1, wherein said nickel
compound ~~comprises~~ is a coating on said NO_x adsorber.

7. (Currently Amended) The NO_x control as in Claim 1, wherein said nickel
compound ~~comprises a plurality of particulates~~ is particulates dispersed throughout with said
NO_x adsorber.

8. (Currently Amended) The NO_x control as in Claim 1, wherein said nickel
compound comprises both a coating on said NO_x catalyst system adsorber and further comprises
~~a plurality of particulates dispersed throughout~~ with said NO_x adsorber.

9. (Currently Amended) The NO_x control as in Claim 1, wherein said nickel
compound is ~~formed~~ disposed on a first support, and ~~further wherein said NO_x adsorber is~~
~~formed~~ disposed on a second support ~~independent from said first support.~~

10. (Currently Amended) The NO_x control as in Claim 9, wherein said nickel
compound disposed ~~is configured for positioning in said exhaust upstream from said NO_x~~
adsorber.

11. (Currently Amended) The NO_x control as in Claim 1, wherein said nickel compound is ~~formed~~ as a self-supported structure, and ~~further~~ wherein said NO_x adsorber is ~~formed~~ disposed on a support, said support being independent from said structure.

12. (Original) The NO_x control as in Claim 1, wherein said NO_x adsorber comprises a catalyst material and a support, said catalyst material selected from the group consisting of cesium, barium, lanthanum, silver, zirconium, and alloys, oxides, and combinations comprising at least one of the foregoing catalyst materials.

13. (Currently Amended) A system for treating an exhaust gas comprising:
a non-thermal plasma reactor; and
a NO_x control comprising a nickel compound and a NO_x adsorber, wherein ~~the NO_x adsorber is selected for an oxygen content in said exhaust greater than about 1 molar%~~ said nickel compound comprises about 50 wt% to about 100 wt% nickel oxide based on total weight of said nickel compound.

14. (Currently Amended) A system for treating an exhaust gas comprising:
a first non-thermal plasma reactor;
a particulate trap disposed downstream from said non-thermal plasma reactor;
a second non-thermal plasma reactor disposed downstream from said particulate trap; and
a NO_x control disposed downstream from said second non-thermal plasma reactor and comprising a nickel compound and a NO_x adsorber, ~~wherein the NO_x adsorber is selected for an oxygen content in said exhaust greater than about 1 molar%~~.

15 - 17. (Cancelled)

18. (New) The NO_x control as in Claim 12, wherein said support comprises a zeolite.

19. (New) The NO_x control as in Claim 18, wherein said support further comprises alumina.

20. (New) A NO_x control, comprising:

a zeolite ion exchanged with a material selected from the group consisting of barium, cesium, lanthanum, silver, and combinations comprising at least one of the foregoing materials; and

a nickel compound coating on the zeolite, wherein said nickel compound comprises about 50 wt% to about 100 wt% nickel oxide based on total weight of said nickel compound.

21. (New) The NO_x control as in Claim 20, wherein said nickel compound comprises about 80 wt% to about 100 wt% nickel oxide based on total weight of said nickel compound.

22. (New) The NO_x control as in Claim 20, wherein said nickel compound is present in an amount of 15 wt% to 50 wt%, based upon the combined weight of said nickel compound and said zeolite.

23. (New) The NO_x control as in Claim 20, further comprising alumina.

24. (New) The NO_x control as in Claim 1, wherein said nickel compound is present in an amount of 15 wt% to 50 wt%, based upon the combined weight of said nickel compound and said NO_x adsorber.

25. (New) The NO_x control as in Claim 1, wherein said NO_x adsorber further comprises a zeolite.

26. (New) The NO_x control as in Claim 12, wherein said catalyst material selected from the group consisting of cesium, barium, and combinations comprising at least one of the foregoing catalyst materials.

27. (New) The NO_x control as in Claim 1, wherein the nickel compound further comprises a material selected from the group consisting of silver oxide, chrome oxide, and combinations comprising at least one of the foregoing materials.

28. (New) The system for treating an exhaust gas as in Claim 14, wherein said nickel compound comprises about 50 wt% to about 100 wt% nickel oxide based on total weight of said nickel compound.